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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,234	03/26/2001	Yuichi Kimikawa	Q63639	8731

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SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

PATEL, GAUTAM

ART UNIT PAPER NUMBER

2656

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/816,234

Applicant(s)

KIMIKAWA, YUICHI

Examiner

Gautam R. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 and 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-12 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/24/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-17 are pending in the application. Claims 1-3, 8-12 and 17 are pending for the examination.

RCE STATUS

2. The request filed on 1/10/06 for Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application is acceptable and a RCE has been established. An action on the RCE follows.

NOTES/REMARKS

3. Mr. Grant Rowan was contacted for some explanation of the claims and specification and he was very helpful. However client was not contacted in time and due pressing nature of the amendment it was decided to proceed without feedback from the client.

Drawings/Objection

4. The drawings are objected for following reasons:

a. The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a drive signal detecting device, a setting device for setting said drive signal and a still detecting device" must be shown or the feature cancelled from the claim.

No new matter should be entered.

b. Figure(s) 10(a) and 10(b) is/are not designated by a legend such as "Prior Art". The legend is necessary in order to clarify what applicant's invention is (see MPEP § 608.02g).

Correction are required.

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Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the applicant for amendment of the drawings to cure defects must consist of following:

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment, and may be *accompanied by a marked-up copy of one or more of the figures being amended, with annotations*. Any replacement drawing sheet *must be identified in the top margin as "Replacement Sheet"* and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. *Any marked-up (annotated) copy showing changes must be labeled "Annotated Marked-up Drawings" and accompany the replacement sheet in the amendment (e.g., as an appendix).*

a proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Correction may not held in abeyance.

Claim Objections

5. Claims 1-3, 8-12 and 17 are objected for following reasons.

It is not clear either from drawings or more importantly from the specification where the elements; a drive signal detecting device, a setting device for setting said drive signal and a still detecting device are located and how are they connected to each other.

Corrections are required.

Claim Rejections - 35 U.S.C. § 112

6. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 8-12 and 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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“a detected value of said drive signal” required by the claims is not described in the specification. The specification mentions several drive signals, such as “Sa”, “Smd” etc., but does not explain which of these values are so called “a detected Value” and how they relate to the drive signal detecting device and more importantly which device is being called “a drive signal detecting device”. Also drawings does not show this device at all. Accordingly, the specification does not explain to one of ordinary skill in the art at the time of the invention, how to make and or use the invention comprising the claimed "a drive signal detecting device and detected value".

7. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 8-12 and 17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 6 is confusing and unclear. It is not clear what is meant by the “a detected value” and how the detecting device is detecting this already detected value, and also more importantly why already detected value is being detected again. And how this second detection differs from the original detection.

Claim Rejections - 35 U.S.C. § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9-10 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hamada et al., US. patent 4,375,091 (hereafter Hamada).

As to claim 1, Hamada discloses the invention as claimed, a carriage servo apparatus [see Figs. 1 & 14] including a drive signal detecting device and a setting device, comprising:

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a drive signal detecting device [fig. 14, units 6, 32 & 31] for detecting a detected value of said drive signal at a time when an increase in the level of drive signal from a predetermined level causes the carriage device to initially move from a still state [power-on state] [col. 17, line 48 to col. 18, line 31]; and

a setting device [fig. 14, units 30 & 31] for setting said drive signal based on said detected minimum value when the information is recorded or reproduced [col. 5, line 63 to col. 6, line 48 & col. 8, line 59 to col. 9, line 11].

9. As to claim 9 it is a method claim corresponding to claim 1 and it is therefore rejected for the similar reasons set forth in the rejection of claim 1, supra, as to the added limitations Hamada discloses:

a carriage servo apparatus [fig. 14 unit 2] for reproduction of information recorded on the information recording face;

a reproduction device [fig. 1, pickup is inherently present when writing and reading is taking place] [col. 8, line 44 to col. 9, line 47]; and

a carriage device [fig. 1, unit 2] [col. 8, line 44 to col. 9, line 47].

10. As to claim 10 it is a method claim corresponding to claim 1 and it is therefore rejected for the similar reasons set forth in the rejection of claim 1, supra.

Claim Rejections - 35 U.S.C. § 103

11. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 8, 11-12 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hamada as applied claims 1, 10 above and further in view of Yasuhiro, J.P.O. publication 11-025474, (hereafter Yasuhiro).

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As to claim 2, Hamada discloses all of the above elements, including an applying device [fig. 14, unit 2 & 22] for applying said set drive signal to said moving device [col. 17, line 26 to col. 18, line 31].

Hamada does not specifically disclose comparison of the beam displacement with another value to the extent claimed.

However, comparison of the beam position to generate an error signal is very well known in the art for a long time and it actually is basis for smooth operation of the read/write operation. Without it the system itself will not work because beam will be detecting wrong things in wrong place so this adjustment is inherently needed.

Also more importantly Yasuhiro clearly discloses:

applying addition drive signal when a value of an error signal indicating displacement of an emission position of said light beams relative to said information track is equal to or greater than a threshold set based on said detected value [ABSTRACT].

Both Hamada and Yasuhiro are interested in controlling optical output of a laser diode and thus eliminating disturbances in a disc drive.

One of ordinary skill in the art at the time of invention would have realized that the system of Hamada would have been sensitive to variations in diode output and that any internal of extraneous noise would have compromised the quality of the electrical signals. And continuous output would have been a desired quality to have in the system.

Therefore, it would have been obvious to have used a stored value and comparison mechanism in the system of Hamada as taught by Yasuhiro because one would be motivated to reduce noise in the laser output of the system of Hamada and provide better signal controls and improve quality of the signal by providing steady state output of the power and move carriage at a smooth pace [ABSTRACT].

12. The aforementioned claim 3, recites the following elements, inter alia, disclosed in Hamada:

a stillness detecting device [fig. 14, unit 24, or fig. 1, unit 22] for detecting whether or not said carriage device is still [col. 9, lines 12-30]; and

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a minimum drive signal applying device [fig. 14, unit 30 and 33] for, while changing a value of said drive signal in a state in which the carriage device is still, applying the drive signal to said moving device the drive signal value applied when said stillness detecting device detects start of movement [power-on] of said carriage device due to the applying of said drive signal is defined as said detected value [col. 17, line 26 to col. 18, line 31].

NOTE: When power-on signal comes system inherently is to detecting stillness.

13. The aforementioned claim 8, recites the following elements, inter alia, disclosed in Yasuhiro:

said setting device sets said error signal having a value equal to or greater than said threshold as said drive signal, and wherein said applying device applies said error signal set as the drive signal to said moving device [ABSTRACT].

14. As to claims 11-12 and 17, they are method claims corresponding to claims 2-3 and 8 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 2-3 and 8 respectively, supra.

15. Applicant's arguments with respect to above claims have been considered but are moot in view of the new grounds of rejection.

Other prior art cited

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Supino et al. (US. Patent 5,699,207) "Chatter reduction in sliding mode control of disk drive actuator..".
- b) Yanagawa et al. (US. patent 4,581,567) "Device for feeding ..".
- c) Giddings (US. patent 4,727,532) "Method and apparatus ...".
- d) Sasamura (US. patent 4,647,990) "Tracking control system".
- e) Kohno (US. patent 4,924,165) "Servo control ...".

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Contact information

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.


GAUTAM R. PATEL
PRIMARY EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

February 27, 2006

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